



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,845	03/04/2004	Tetsuo Yamaguchi	3673-0170P	5297
2292	7590	10/31/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PASSANITI, SEBASTIANO	
			ART UNIT	PAPER NUMBER
			3711	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	Applicant(s)	
10/791,845	YAMAGUCHI ET AL.	
Examiner	Art Unit	
Sebastiano Passaniti	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on see detailed Office action.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office action is responsive to communication received 08/18/2006 –  
Amendment and Remarks.

Claims 1-20 remain pending.

Claims 5-16 STAND withdrawn from further consideration.

Following is an action on the MERITS:

#### ***Claim Rejections - 35 USC § 102 and 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 STANDS rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Werner ('150). Under §102, note that Werner details that the thickness of the striking face is greatest at the center, with a gradual thinning towards the peripheral wall. Applicant has detailed at page 7 of the specification that one way of providing the required values of "x" and "y" is to thin the face above the center so that the amount of flexure is increased. Here, Werner has

provided an increase in flexure above the center of the face and more particularly in a range greater than 0 mm and smaller than or equal to 10 mm, as measured in a vertical "y" direction from the center of the hitting face. See Figure 3 in Werner.

Alternatively under §103, while the Werner device may not necessarily specify that the thinned face that is 10 mm removed from the center of the striking face is the point of maximum resiliency, it is noted that the structure shown by Werner, i.e., the cross-section of face wall showing the curvature and thickness of the face wall (Figure 4 in Werner) substantially mimics the cross-section of the face wall shown by the applicant in Figure 3 of the application. Thus, the fact that the two cross sections being compared are substantially the same would lead the skilled artisan to understand that the maximum point of resilience may be located above the center of the striking face and may not necessarily be at a point on the striking face of least thickness. Moreover, the fact that the Werner face is uniformly constructed of the same material throughout would have provided some guidance to the skilled artisan that the resilience of the face must increase at points further from the center of the face. Werner provides further guidance to the skilled artisan in sizing the face, as Werner teaches that optimum values for the center of gravity location, loft angle and moment of inertia of the club may be obtained through a readjustment of the mass of the face. In view of the teaching in Werner, one of ordinary skill in the art would have found it obvious to locate the point of maximum resilience within 10 mm of the center of the hitting face in a positive "y" direction, as detailed in the claims, the motivation being to provide a desirable amount of flex in the face. Note that the claimed "y" value is only disclosed as being a preferred

value [SPECIFICATION, PAGE 7]. No criticality has been established by the applicant for applying the claimed range of "y" values.

Claims 2-4 STAND rejected under 35 U.S.C. 103(a) as being unpatentable over Werner. As to claim 2, note the argument under §103 for claim 1, supra. Here again, one of ordinary skill in the art would have found it obvious to locate the point of maximum resilience within 5 to 8 mm of the center of the hitting face in a positive "y" direction, as detailed in the claims, the motivation being to provide a desirable amount of flex in the face. Note that the claimed "y" value is only disclosed as being a preferred value [SPECIFICATION, PAGE 7]. No criticality has been established by the applicant for applying the claimed range of "y" values. As to claims 3 and 4, the value of  $(t_2 - t_1)$  is not deemed patentable, as the claimed value is simply set forth so that the club head may conform to a known pendulum test result set forth by the USGA. Applicant has acknowledged that the pendulum test is as described in "Technical Description of the Pendulum Test" and attached to "Notice to Manufacturers", issued from the USGA on February 24, 2003.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zebelean ('549). The patent to Zebelean shows the applicant's basic claimed invention and includes a thinned striking face region in areas above the geometric center of the striking face. Zebelean differs from the claimed invention in that Zebelean does not disclose the precise, claimed points of maximum resiliency. It is noted that no criticality has been established by the applicant for applying the claimed range of "y" and "x" values. The claimed value of  $(t_2 - t_1)$  is not deemed patentable, as the claimed value is

simply set forth so that the club head may conform to a known pendulum test result set forth by the USGA. Applicant has acknowledged that the pendulum test is as described in "Technical Description of the Pendulum Test" and attached to "Notice to Manufacturers", issued from the USGA on February 24, 2003.

### ***Response to Arguments***

In the arguments received 08/18/2006, the applicant contends that the prior art reference to Werner fails to include any disclosure whatsoever regarding a reduction in face thickness away from the center of the face in order to alter the position of maximum resilience. Applicant points to the fact that Werner provides a uniform reduction of the clubface thickness in all directions away from the center, while the instant invention is directed to a non-uniform thinning of the clubface in directions toward the top, bottom, toe and heel. The applicant further contends that the rejection based upon Werner and further referencing the USGA Rules relating to the value of  $(t_2 - t_1)$  is misplaced, as the USGA Rules do not offer guidance for the value of  $(t_2 - t_1)$  at points outside of the center of the striking face. The applicant presents further arguments with respect to the rejection of claim 17 in view of the McKeighen reference and notes that the amended claims clearly define that the point of maximum resiliency is not at the geometric center of the clubface, i.e., the point of maximum resiliency is not at coordinates  $(x, y)$  equal to  $(0, 0)$ .

In response to these arguments and with respect to the prior art rejections based upon the Werner teaching, it is noted that in response to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the

features upon which applicant relies (i.e., a non-uniform reduction of the clubface thickness) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Here, the broadest, reasonable interpretation of the claim language is being used to apply the prior art. Claims 1-4 never define what the extent of the hitting surface is or for that matter what portion of the club head the hitting surface occupies. In fact, any portion of the surface area of the face wall (16) in Werner may be considered a "hitting surface". Thus, by the very fact that the thickness decreases from the center upwardly in a positive "y" direction towards the crown surface naturally dictates that the maximum point of resilience has shifted upwardly on at least one portion of the hitting surface. Figure 3 in Werner clearly shows that a reduction in face thickness occurs from 0 mm to 10 mm in the positive "y" direction. Note, the claimed term "resilience point" is also being given the broadest, *reasonable* interpretation. Here, one would have to consider that the "point" is in essence a region or a specifically bounded area on the surface of the face. The claim makes no distinction as to how large or small this bounded area must be in relation to the remaining surface area of the clubface. If the applicant is attempting to distinguish the claimed invention from Werner by arguing that Werner shows a clubface reduction in thickness in directions all around and away from the center of the clubface, then it would appear that the applicant is arguing that the "point" of the claimed invention includes a single, distinct point that is completely different in thickness from all other points on the clubface. This would not only seem inaccurate

based upon applicant's disclosure, but would also appear to be a very misplaced interpretation of the claim language. As for arguments relating to the USGA Rules for the pendulum test, which are referenced in both the rejection of the claims and the applicant's response, it is noted that the applicant has indicated that the USGA test does not apply to points outside the clubface center. If this is the case, then it is inaccurate to compare a claimed value of  $(t_2 - t_1)$  for areas outside the clubface center with results of the test, when the test only dictates values for  $(t_2 - t_1)$  on the center of the hitting surface.

With respect to applicant's arguments relating to the McKeighen reference, applicant's arguments have been considered and are deemed persuasive to overcome the rejection of claim 17 over McKeighen. However, claims 17-20 have now been rejected using a new ground(s) of rejection, in view of the applicant's amendments to these claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the



shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 571-272-4413. The examiner can normally be reached on Monday through Friday (6:30AM - 3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene L. Kim can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.Passaniti/sp  
October 29, 2006

  
Sebastiano Passaniti  
Primary Examiner